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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/437,226	11/10/1999	JOHN S. TULLOCH	540-161	7673

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EXAMINER

PATEL, PARESH H

ART UNIT	PAPER NUMBER
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2858

DATE MAILED: 12/28/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/437,226

Applicant(s)

TULLOCH ET AL.

Examiner

Paresh Patel

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 12 July 2001 is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Elabd fails to teach any leakage current measuring means and also fails to teach "a fluid having electrolytic property". Examiner disagrees because Elabd suggest the use of fluid at lines 33-61 of column 2, and Wood in combination with Elabd discloses leakage current measuring means and also fails to teach "a fluid having electrolytic property as disclosed in claim rejection.

Applicant also argues that Elabd is not related to wires or cables which are insulated. Examiner disagrees because all the transmission line wires have insulation coating to protect against corrosion, also new reference is cited to overcome this limitation. Applicant cannot show non-obviousness by attacking references individually where, as here rejection are based on combination of references In re Keller, 208 USPQ 871 (CCPA 1981).

Applicant again argues that Wood is not related to an insulated wire or cable and does not apply any current to its conductive substrate. Examiner disagree because wood uses electrolyte fluid to measure defect in semiconductor. In combination with Elabd and Gazdzinski, they measure integrity of insulation of an insulated cable. Applicant cannot show non-obviousness by attacking references individually where, as here rejection are based on combination of references In re Keller, 208 USPQ 871 (CCPA 1981).

Allowabl Subject Matter

Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 2, 4-7, 12-14 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elabd (US 4584523) in view of Wood (US 4473795) and Gazdzinski (US 6144032).

Regarding claims 1, 2, 4-7, 12-14 and 24 Elabd discloses: a method of passing a current through wire [lines 45-50 of column 3] and a use of thermal imaging system [lines 39-44 of column 3] to measuring a datum value of heat emission [lines 39-50], an infrared detector [element 20 of fig. 1], a display monitor [line 39 of column 4], a thermal imaging camera [lines 49-54 of column 2], a detector is hand-held [lines 54-57 of column 2], a detector is stand mounted [lines 54-57 of column 2], detecting temperature changes of less than 0.5° C. [lines 65-68 of column 6].

Elabd discloses all the essential element of the claimed invention except for a leakage current measuring means (ammeter), a fluid having electrolytic properties and fluid is capable of conducting a leakage current. Wood discloses an ammeter [element 26 of fig. 1], a fluid having electrolytic properties and capable of conducting a leakage current [element 18 of fig. 1]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Elabd to apply a conductive fluid having electrolyte property. The ordinary skill artisan would have been motivated to modify Elabd for the purpose of converting heat patterns into light patterns.

Elabd and Wood in combination discloses all the essential element of the claimed invention except for an inspecting the integrity of the insulation of an insulated cable. Gazdzinski discloses an inspecting the integrity of the insulation of an insulated cable [lines 1-3 of ABSTRACT, lines 40-45 of column 17 and 1-11 of column 18]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to inspect the integrity of the insulation of an insulated cable as taught by Gazdzinski. The ordinary skill artisan would have been motivated to modify the combination of Elabd and Wood to detect faults in the insulation of insulated cable.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elabd, Wood and Gazdzinski as applied to claims 13, 12 and 1 above, and further in view of Marquez-Lucero et al. (US 5574377).

Regarding claim 15 Elabd, Wood and Gazdzinski discloses all the essential element of the claimed invention except for an Oscilloscope. Marquez-Lucero et al. (hereafter Marquez) discloses an oscilloscope [element 17 of fig. 9 and lines 27-31 of

column 3] It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Elabd, Wood and Gazdzinski to use oscilloscope as taught Marquez to study amplitude values of electrical quantities.

Claims 3 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elabd, Wood and Gazdzinski as applied to claim 1 above, and further in view of Piety et al. (US 5637871).

Regarding claim 3, 8, 9 and 11 Elabd, Wood and Gazdzinski discloses all the essential element of the claimed invention except for a recording means for recording display images, a recording means is adapted to computer to store display images, a recording means is adapted to video tape to store display images, a false color scale to represent various temperatures. Piety et al. (hereafter Piety) disclose a recording means for recording display images [see abstract lines 11-14], a recording means is adapted to computer to store display images [see abstract lines 16-18], a recording means is adapted to video tape to store display images [see abstract lines 14-16], a false color scale to represent various temperatures [lines 29-34 of column 13]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Elabd, Wood and Gazdzinski to include a recording means for recording display images, a recording means is adapted to computer to store display images, a recording means is adapted to video tape to store display images, a false color scale to represent various temperatures. The ordinary skill artisan would have been motivated to modify the combination of Elabd, Wood and Gazdzinski to measure a pressure at a point on given surface.

Regarding claim 10, as best understood by examiner is rejected. Official Notice is taken that calibrating an image is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to calibrate the image for greater accuracy.

Claims 16-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Elabd and Wood as applied to claim 1 above, and further in view of Singh (US 5624928).

Regarding claims 16-22 Elabd, Wood and Gazdzinski discloses all the essential element of the claimed invention except for an aqueous saline solution, a sodium chloride, an ammonium chloride, dripping of fluid, a spraying of fluid and wetting agent. Singh discloses an aqueous saline solution [line 63-65 of column 11], a sodium chloride [line 59-62 of column 11], an ammonium chloride [lines 36-40 of column 20], a dripping of fluid [lines 65-67 of column 11] and a spraying of fluid [lines 4-6 of column 12] and a wetting agent [Triton of line 37 of column 10]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Elabd, Wood and Gazdzinski to include an aqueous saline solution, a sodium chloride, an ammonium chloride, dripping of fluid and spraying of fluid. The ordinary skill artisan would have been motivated to modify the combination of Elabd, Wood and Gazdzinski for the purpose of cleaning the cable.

Regarding claim 23 Elabd, Wood and Gazdzinski discloses all the essential element of the claimed invention except for a fluid is non-corrosive. Official Notice is taken that a non-corrosive fluid (e.g. protective layers on transmission line conductors) is well known and expected in the art. It would have been obvious to one of ordinary

skill in the art at the time the invention was made to use non-corrosive fluid to modify the combination of Elabd, Wood and Gazdzinski for the purpose of increasing the durability of cable.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 703-306-5859. The examiner can normally be reached on M-F (8:30 to 4:30).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Paresh Patel
December 18, 2001



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